



Headquarters U.S. Air Force



Fly – Fight – Win

The Military Medical Scientist: Air Force Perspective



**Colonel Deb Niemeyer, Ph.D.
March 4, 2008**



Agenda

- Introduction
- Background
- Biomedical Science Corps
- Career Paths



Fly = Fight = Win



USAF Priorities



Our priorities are clear:

- Winning the Global War on Terrorism***
- Developing and caring for our Airmen***
- Modernizing and recapitalizing our aircraft and equipment***

- 2006 Air Force Posture Statement



The U.S. Air Force must remain ready to Fly, Fight & Win



Surgeon General... Same as Top Line

- **Winning the War on Terror**
- **Fit/Health Force/Community**
 - **Healthy Fit Force**
 - **Focus on Family**
- **Recapitalization**
 - **Find the Balance**
 - **Invest in Medical Force**



Fly – Fight – Win



Air Force Medical Tasks



Fit & Healthy Force



Prevent Casualties



Enhance Performance



Restore Health

Fly – Fight – Win



US Air Force Medical Service



- **5 Medical Centers**
- **54 Continental U.S. MTFs**
- **15 Overseas MTFs**
- **\$6.4B Annual Budget**
- **1.3M TRICARE Enrollees**
- **2.6M Beneficiaries**
- **7.8M+ Ambulatory Visits**
- **Over 7,300 Civilians**
- **Over 12,200 AD Officers**
- **Over 21,500 AD Enlisted**
- **Over 20,000 Guard/Reserve**

Fly – Fight – Win



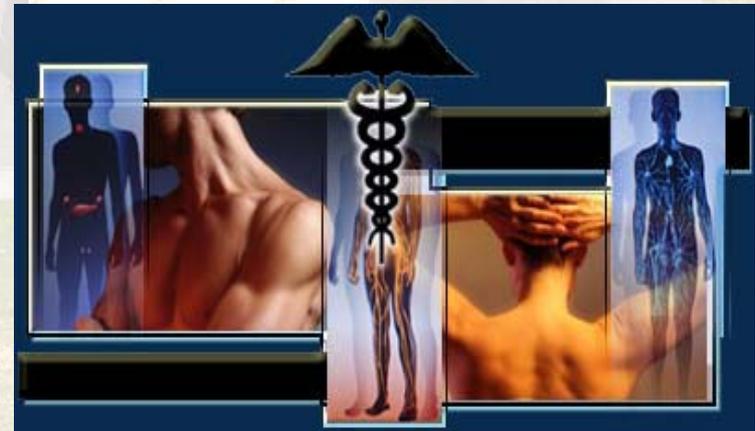
Modernization

Provide oversight, direction, policy and resources to leverage Science & Technology, Information Systems, Academia & Industry; transforming medical capabilities to address critical short-term and long-term challenges in support of the Air Force and Joint Warfighter

Air Force Surgeon General's Modernization Directorate



AFMS - CIO



Fly – Fight – Win



Biomedical Science Corps Vision

BSCs ... Diversity united in one mission, one voice, one corps



...The BIOMEDICAL SCIENCES CORPS

The 3rd largest element of the AF Medical Service...

Fly – Fight – Win



BSC Mission

Enhance Air Force mission-effectiveness by providing world-class customer service and scientific expertise...resulting in peak force performance/productivity and a healthy beneficiary population



Fly – Fight – Win



History: Military Scientists

- War drove the need for scientists working on military relevant projects, as well as for military scientists...
- The military scientist first appeared in the Army during World War I; in 1917, Congress established the Army Sanitary Corps to combat infectious diseases.
- The Sanitary Corps was a Reserve component composed of over 3,000 officers, with ranks filled primarily by scientific and health-related specialties (i.e., sanitary engineering, industrial hygiene, clinical laboratory, and entomology).



Fly – Fight – Win



History: Military Scientists

- June 4, 1920, the Army Medical Administrative Corps (MAC) was established. It incorporated administrative functions as well as medical specialties previously assigned to the Sanitary Corps; pharmacy officers were added in 1936.
- With the onset of World War II in 1941, the Army Sanitary Corps was again formed as a separate corps -- scientific medical specialists, including sanitary engineers, bacteriologist, biochemists, physiologists, entomologists.
- By 1943 the medical demand for Army dietitians and pharmacists grew, resulting in the Army Dietetics Corps and Pharmacy Corps being established.
- In 1945, the Women's Medical Specialists Corps (WMSpC) was created to consolidate management oversight of all Army occupational and physical therapists, and shortly thereafter, Army dietitians.



Medical Recruiting Poster



Colonel Emma Vogel, first
WMSpC Chief

Fly – Fight – Win



From Army to Air Force

- With the passing of the National Security Act in 1947 the Army Medical Service Corps was created and consolidated biomedical scientists from the WMSpC, MAC, Army Pharmacy Corps, Army Veterinary Corps, and the Army Sanitary Corps.
- The 1947 National Security Act was also the legislative catalyst to create the United States Air Force as a separate service.
- 1949, the Secretary of Defense authorized the formation of the Air Force Medical Service (AFMS).
- More than 3,700 officers and 1,400 enlisted personnel were transferred from the Army, many from the newly established Army Medical Service Corps.



Air Force 1 year anniversary



Aero-evacuation
Training



Fly – Fight – Win



Biomedical Scientists: The Early Years

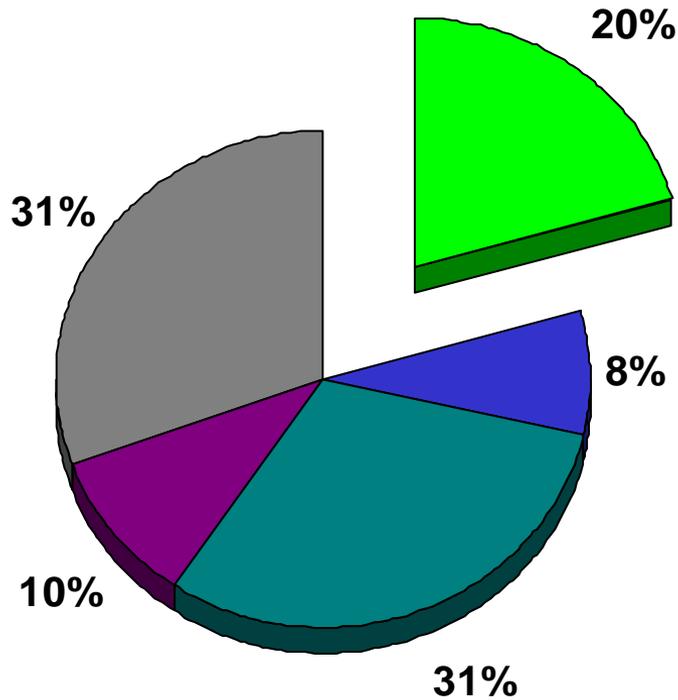
- A separate Biomedical Sciences Corps was established in 1964.
- In 1965, the first BSC Chief was appointed.
- 1980, the Air Force Veterinary Corps was disbanded and its officers transferred to the BSC.
- In 2005-6, an effort was launched to establish a BSC Science & Technology (S&T) career track.
- Today, this newest track, “Research, Development & Acquisition” (RD&A), addresses AF medical research & emerging technology needs, and interfaces with AF Acquisitions Community (Science, Engineering, Program Management, Contracting).



Fly – Fight – Win



Air Force Medical Service Organization



- | | | |
|------------------------------------------------------------------------------------|------------|----------------------------------|
|  | BSC | Biomedical Sciences Corps |
|  | DC | Dental Corps |
|  | MC | Medical Corps |
|  | MSC | Medical Service Corps |
|  | NC | Nurse Corps |

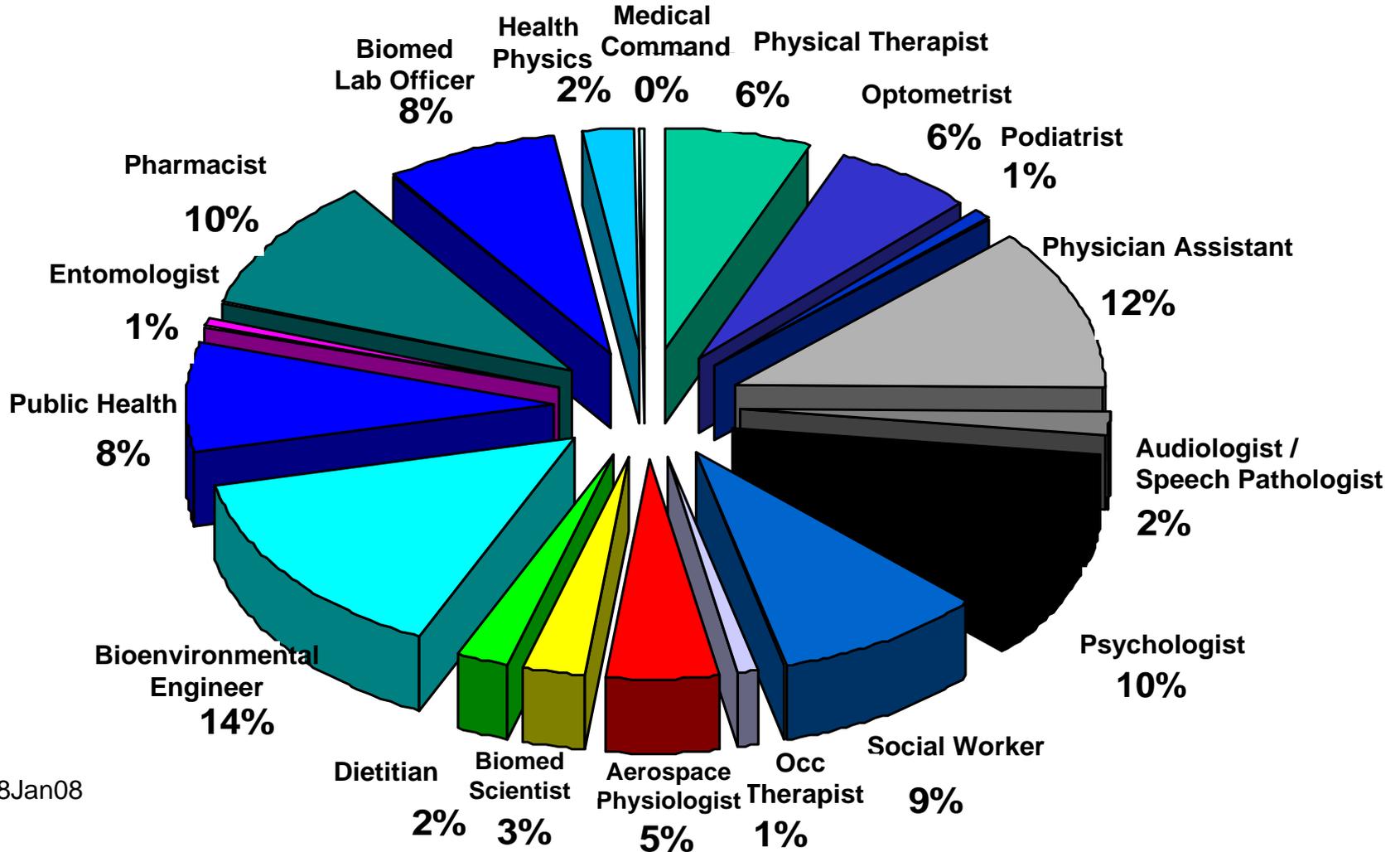
The BSC Corps is the 3rd largest element of the Air Force Medical Service

■ 18Jan08

Fly – Fight – Win



BSC Specialty Distribution

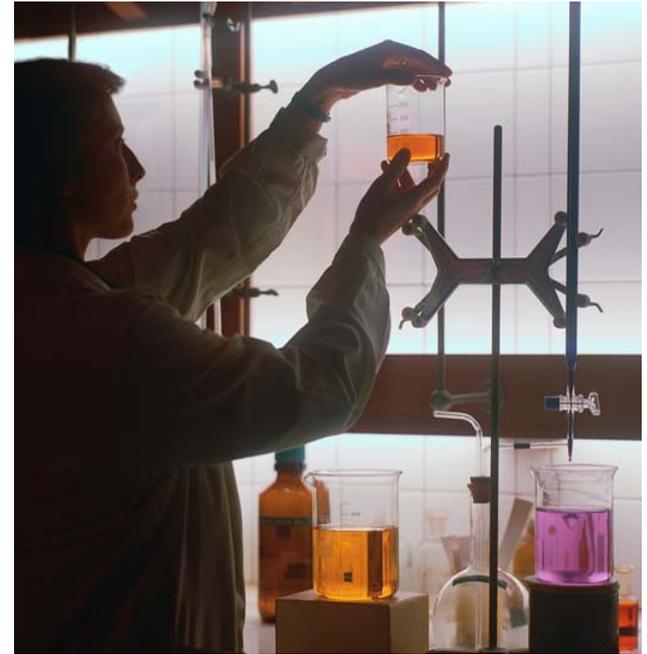
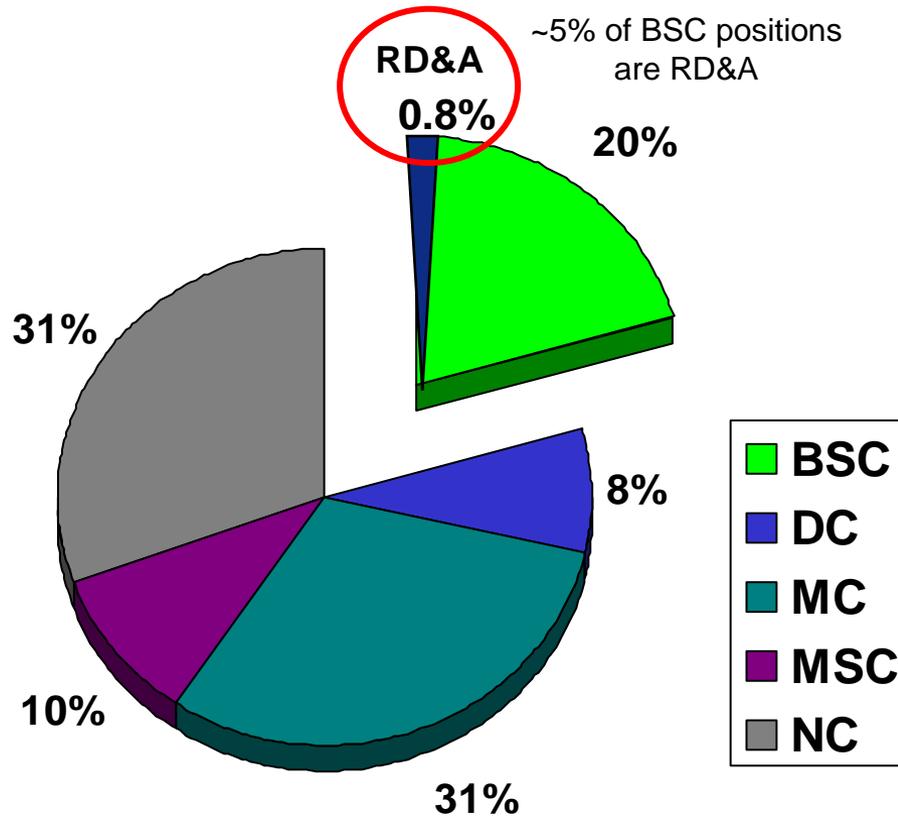


■ 18Jan08

Fly – Fight – Win



Air Force Medical Service Organization: RD&A



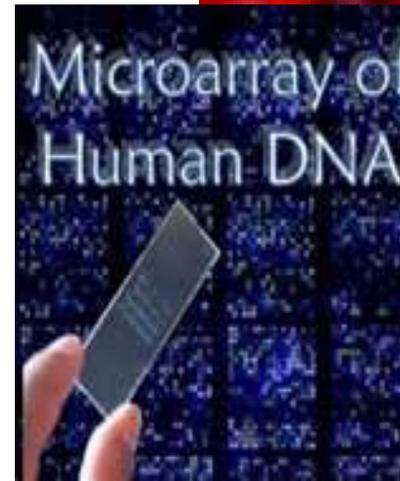
■ 18Jan08

Fly – Fight – Win



Research, Development & Acquisition

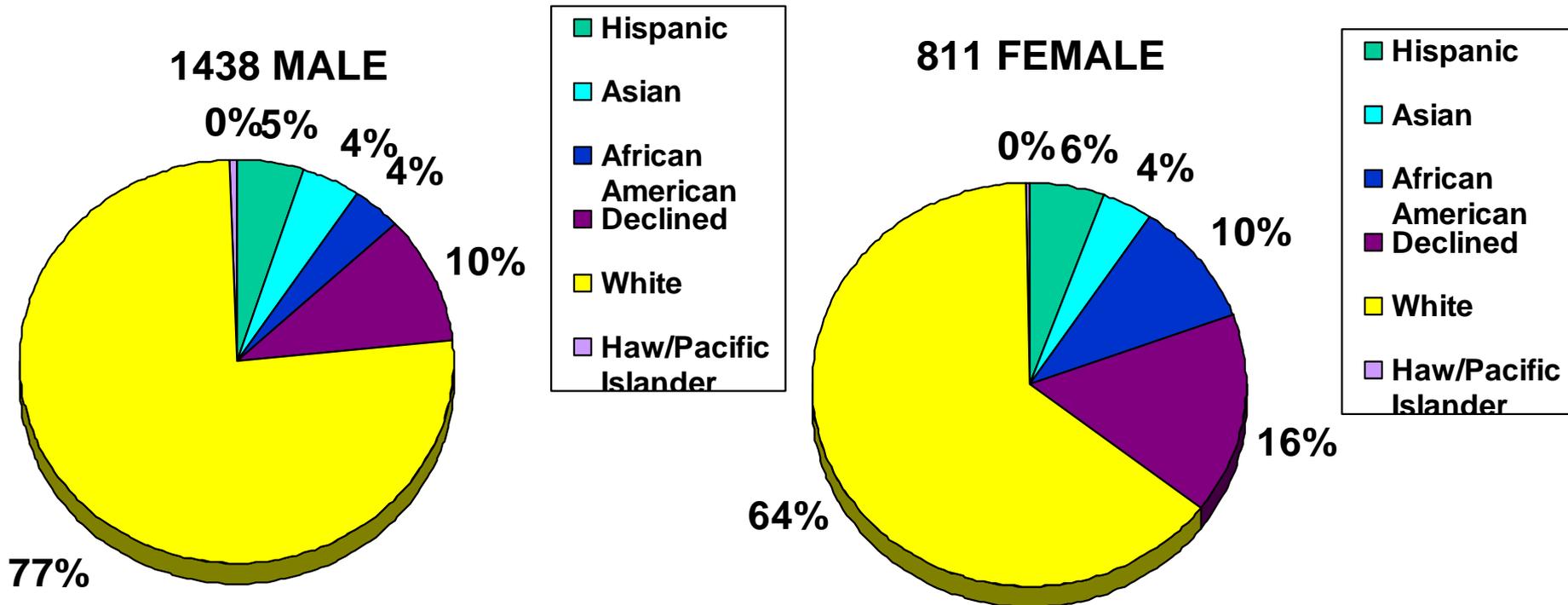
- RDT&E: development or demonstration of military systems or components
- “Medical R&D” and Graduate Medical Education (GME) support
- Science & Technology = Fundamental R&D
 - Basic, applied, advanced technology development focused 10+ years out
 - Performed by defense agencies / service labs, universities, and industry
 - Invention and development of new technologies which will protect our forces and ensure U.S.military dominance
 - Examples: Nanotechnology, Enhanced computing; Self-healing & monitoring technologies; Traumatic Brain Injury determination, Improved explosives detection
- Program / Project Management



Fly – Fight – Win



BSC Gender Breakouts



~37% of BSC officers are female

~30% of RD&A positions filled by female officers

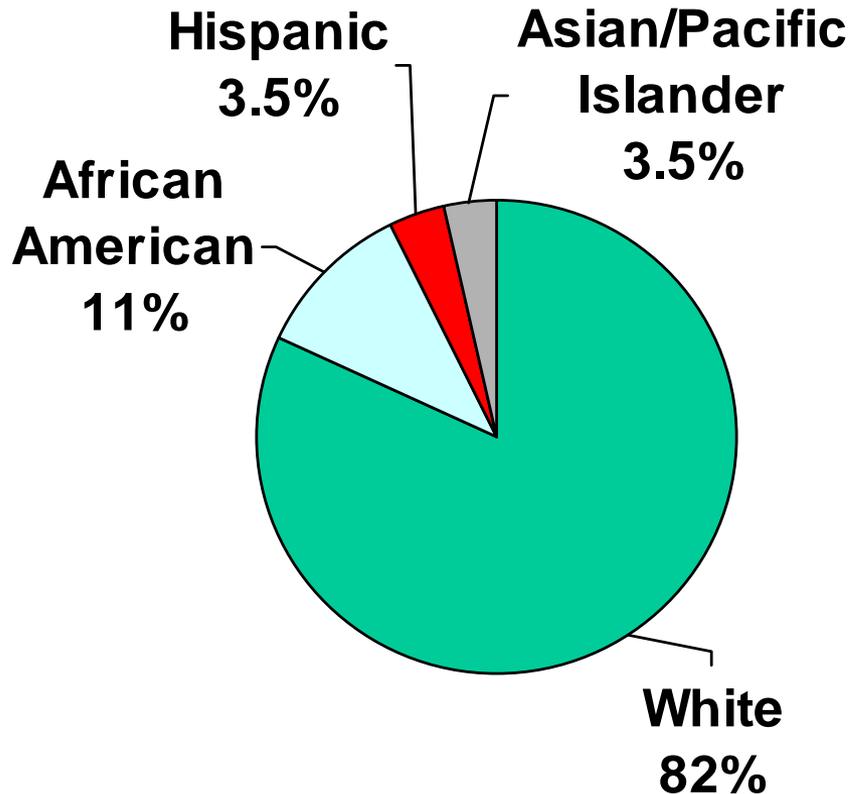
■ 2Jan08

Fly – Fight – Win

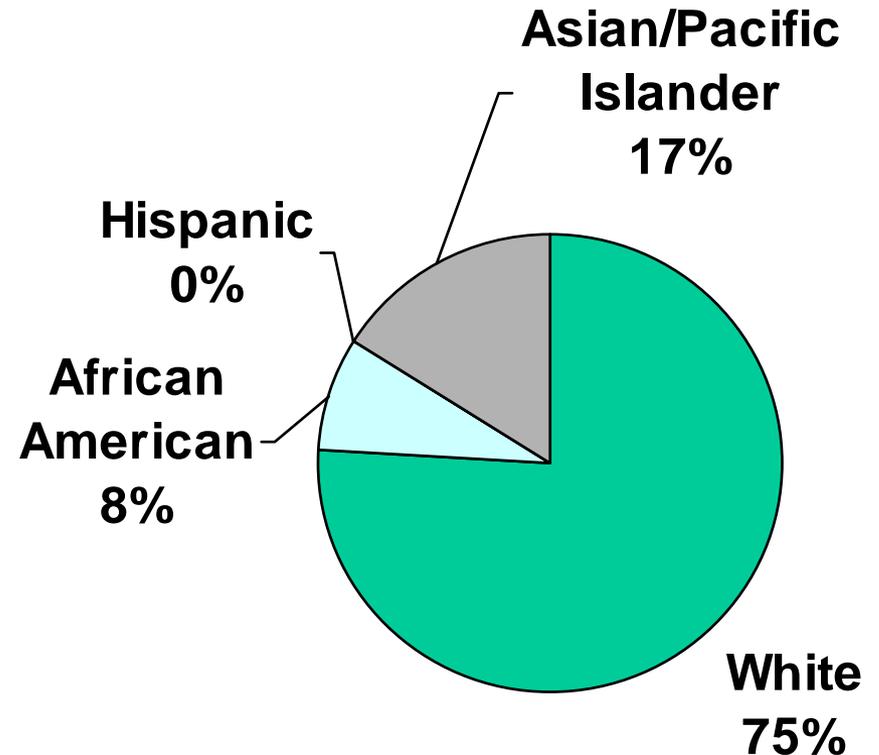


Navy Medical Research Center

Male Officers



Female Officers (30%)



Courtesy of LCDR Charmagne Beckett

Fly – Fight – Win



Force Development

Doctrine

- **Development** – the series of experiences and challenges, combined with education and training opportunities that produces AF leadership
 - **Tactical level development** – gaining knowledge and experience in primary skill, combined with educational and leadership training experiences
 - **Operational level development** – continued widening of experience and increased responsibility within a related family of skills
 - **Strategic level development** – challenges to gain breadth of experience and leadership perspective (institutional AF, joint, inter-government, business and international views)



Fly – Fight – Win



Roadmap to Success...

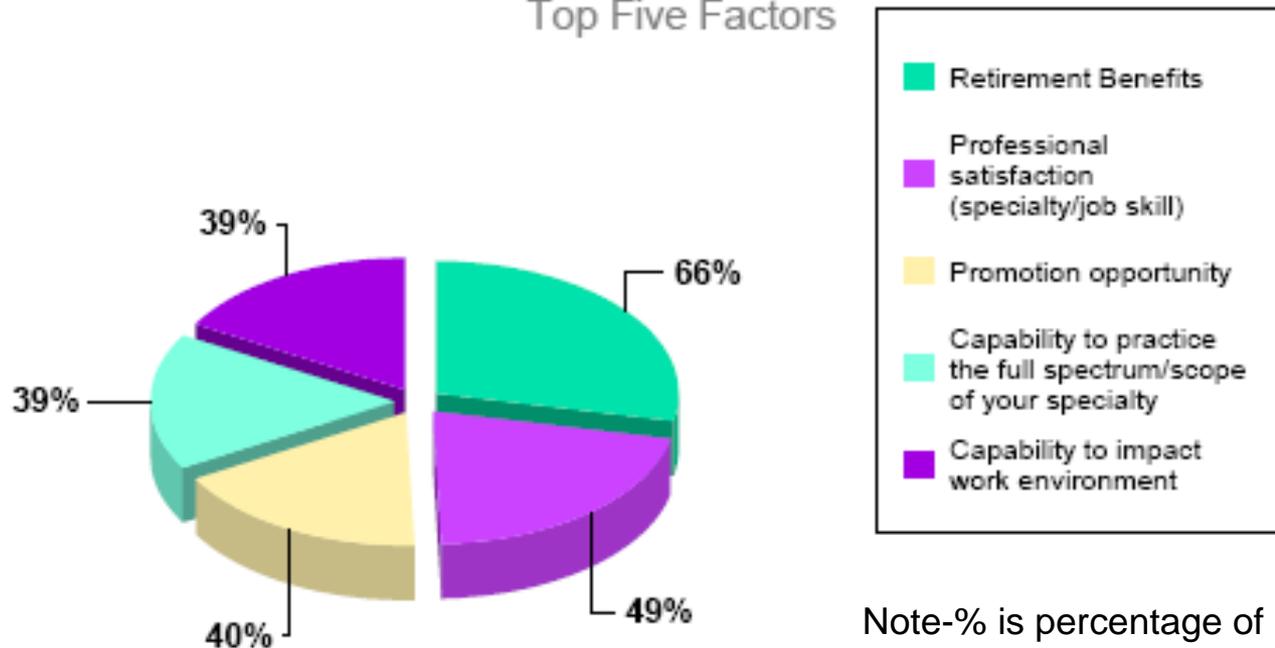
- **Do Professional Military Education**
- **Get appropriate degree type and level**
- **Obtain Board Certification, if appropriate**
- **Broaden your leadership experiences**
- **Talk to supervisor about goals--and appraisals**
- **Review records--with a senior official**
- **Keep records correct and current**
- **Update Assignment Management documents**



BSC Assessment Overview: Attractors

Strong Influence to Remain

Top Five Factors



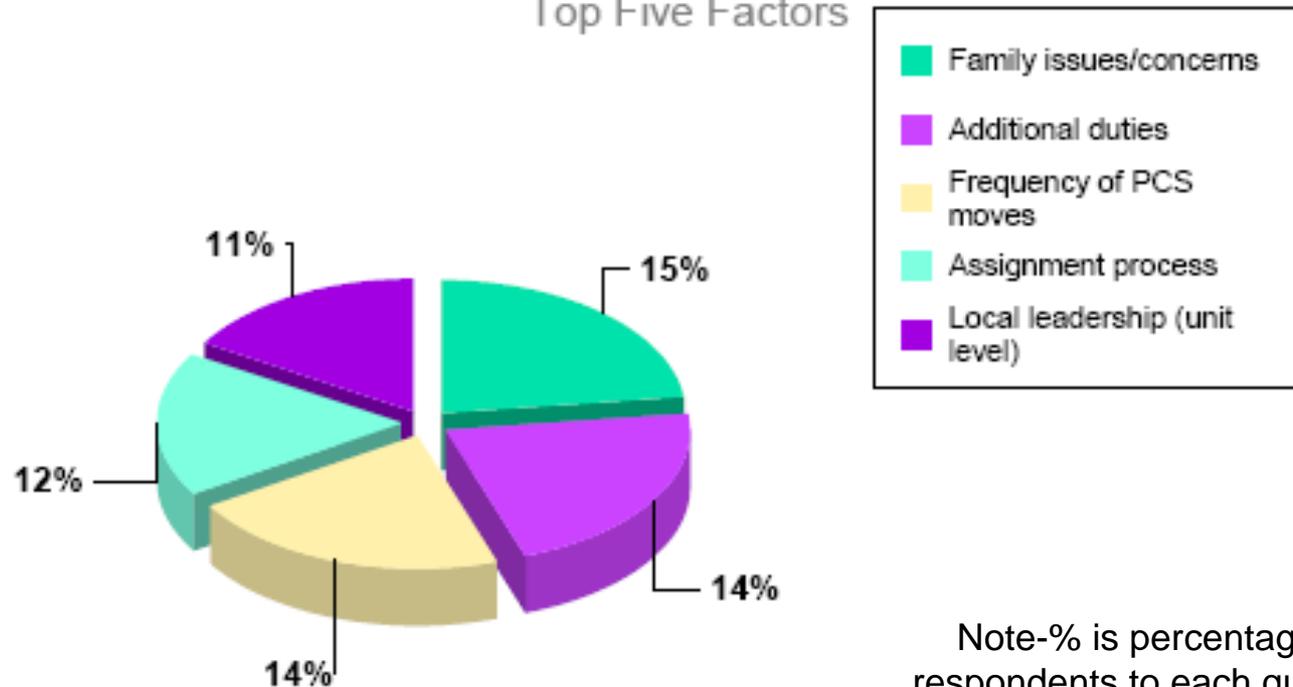
Note-% is percentage of respondents to each question



BSC Assessment Overview: Distracters

Strong Influence to Separate

Top Five Factors



Note-% is percentage of respondents to each question



Sustained Career Success

- **Why we are successful...**
 - **Clear Vision**
 - **Stellar leadership**
 - **Mentorship throughout Career (multi-layered)**
 - **Defined requirements for Advancement**
 - **Determined Career tracks**
 - **Promotion Feedback (Individual & Group)**
 - **Professionally challenging Assignments**

Fly – Fight – Win



Vietnam Women's Memorial

- Honors the women of the United States who served in the Vietnam War, most of whom were nurses.
- Dedicated in 1993, the sculpture serves as a reminder of the importance of women in the conflict.
- Part of the Vietnam Veterans Memorial, it depicts three uniformed women with a wounded soldier.
- Diane Carlson Evans, who served as a nurse in the army during the Vietnam War, initiated the drive to add the bronze sculpture.

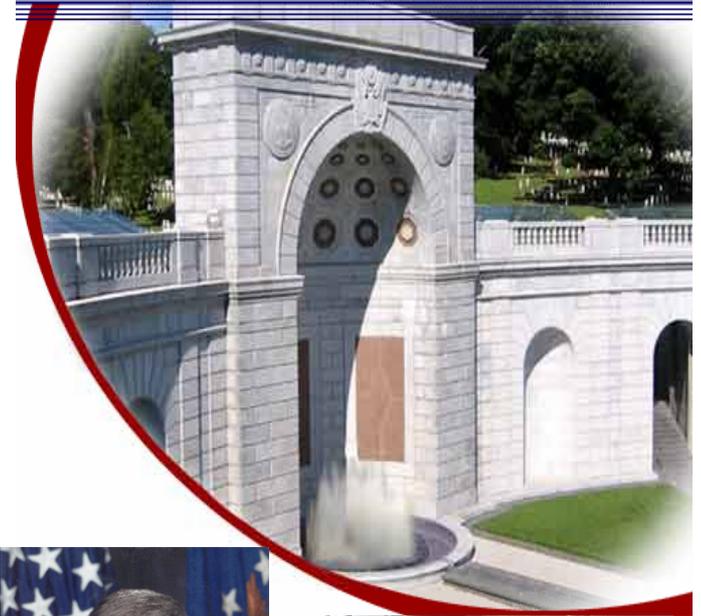


Fly – Fight – Win



Women in the Military Service for America Memorial

- Located at Arlington National Cemetery, the Women's Memorial is a unique, living memorial honoring all military women - past, present and future.
- It's the only major national memorial honoring women who have served in our nation's defense during all eras and in all services.
- Dedicated October 18, 1997, the memorial honors 2.5 million women who have served or are serving in or with the US Armed Forces starting with the American Revolution.



*Brigadier General Wilma L. Vaught, USAF (Ret.)
President, Women's Memorial Foundation*



American Servicewomen in the Global War on Terror Exhibit

Fly – Fight – Win



Questions



Fly – Fight – Win



Theresa Casey, Brig Gen, USAF, BSC
Assistant Surgeon General, Modernization
Chief, Biomedical Science Corps
Office of the Surgeon General
theresa.casey@pentagon.af.mil
703-681-6306

Debra Niemeyer, Col, USAF, BSC
Deputy Assistant Surgeon General, Modernization
Surgeon General Consultant, Biomedical Research
Office of the Surgeon General
debra.niemeyer-03@pentagon.af.mil
703-681-6306

Fly – Fight – Win



References

- Biomedical Science Corps Celebrates It's 40th Anniversary. USAF Medical Service Homepage.
http://www.airforcemedicine.afms.mil/sq_newswire/jan_05/BiomedicalSciencesCorpsCelebrates.htm
- Vogel, E., Gearin H. Events Leading to the Formation of the Women's Medical Specialist Corps.
<http://history.amedd.army.mil/booksdocs/histories/ArmyMedicalSpecialistCorps/chapter1.htm>
- The Medical Department (ASF) [Army Service Forces].
<http://history.amedd.army.mil/booksdocs/wwii/WomeninAMEDD/WACCh19ASFMed.htm>
- Frize, M. Well-known Women Engineers and Scientists from Around the World.
<http://http-server.carleton.ca/~mfrize/wise/womensc.htm>
- The Creation of the Air Force Medical Service. USAF Medical Service Homepage.
<http://www.sg.af.mil/history/section1.asp>
- Vietnam Women's Memorial Foundation.
<http://www.vietnamwomensmemorial.org/intro.html>
- Women In Military Service for America Memorial Foundation.
<http://www.womensmemorial.org/About/welcome.html>